

Customer No.: 31561
Application No.: 10/064,426
Docket No.: 7983-US-PA

REMARKS

Abstract Objections

The Office Action objected the abstract.

The Applicant have amended the abstract in proper language and format. Therefore, the Applicant respectfully requests reconsideration of abstract.

Drawings Objections

The Office Action objected the drawing under 37 CFR 1.83(a) for the drawings don't show every feature of the invention specified in the claims.

The Applicant have amended the original FIG. 2 and added a new drawing (FIG. 2B) which shows the cross section of original FIG. 2 (FIG. 2A as substitute). It is believed that the additional drawing could help to understand the features of the invention specified in the claims. Therefore, the Applicant respectfully requests reconsideration of drawings without raising new matter.

Claim Rejections under 35 USC §112

The Office Action rejected Claim 1 and 8, Claims 14-15, Claim 23-24, and Claim 21 under 35 U.S.C 112; also the Office Action rejected Claim 2-3 under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Discussion of Office Rejections under 35 USC §112

The Applicant have amended the unclear word by replacing "refers" shown in claims 1, claim 8, claims 14-15, and claims 23-24; and the words without antecedent basis of claim 21. Also the Applicant have amended claim 2 and claim 3. Therefore, the Applicant respectfully requests reconsideration of claim 1, claim 2-3, claim 8, claims 14-15, claim 21, and claims 23-24.

As the skilled in the art known, the signal line is a floating potential and it needs a reference potential to have a stable data transmission quality.

Amendments in Claims

Applicants have amended independent claims 1, 8, 15, and 21. The amendments are based on, for example, amended FIG. 2A, [0020]-[0021]. No new matter has been added.

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Claim Rejections under 35 USC §103

The Office Action rejected presently-pending claims 1-28. Specifically, the Office Action rejected claims 1-28 insofar as in compliance with 35 USC §112 under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art of figure 1 ("the Prior Art") in view of Govind et al. (U. S. Patent 6,531,932). Claims 1-28 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Office Rejections under 32 USC §103

The Office Action rejected claim 1-28 under 35 U.S.C 103, as being applicant's admitted prior art in view of Govind et al.. Applicants respectfully traverse the rejections for at least the reasons set forth below.

As the amended claim 1 recited, *"A layout structure for supporting two different package techniques of the central processing units (CPUs), wherein said layout structure is placed in an area where is between a control chip and said CPU, said layout structure comprising: a top signal layer, used to place a first signal line in said area where said CPU is coupled to the control chip; a reference potential providing layer, located below said top signal later, coupled to a reference potential, wherein said the reference potential providing layer provides a first reference potential to said first signal line; a power layer, located below said reference potential providing layer, comprising: a voltage providing area for providing an operating voltage to the CPU and said control chip; and a reference potential providing area, coupled to the reference potential; and a bottom signal layer, located below said power layer, used to placed a second signal line in said area where said CPU is coupled to the control chip, wherein said reference potential providing area in said power layer provides a second reference potential to said second signal line."*

As the emphasized above, the power layer comprising two areas i.e. 204 and 205, one provides an operating voltage, another provides a second reference potential to the second signal line which is on the bottom signal layer.

In re Admitted Prior Art (APA), APA failed to teach the claimed invention for cutting into two areas [0021].

In Govind et al. (FIG. 1, col. 1, lines 13+) *"FIG. 1A is a cross sectional view*

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showing the layer stack up of a typical microstrip 4-layer flip chip package substrate. The substrate 12 is typically a printed circuit board or the like. Layer 1 of the substrate located on the top of the substrate 12 and is a top signal layer 14, and layer 2, is a ground plane (V_{ss}) 16. Layer 3 is a power plane (V_{dd}) 18, and layer 4 is a bottom signal layer 20."

It is noticed that the Layer 3 of Govind et al. doesn't teach or suggest about providing a reference potential for the Layer 4. That's the at least difference between Govind et al. and the present invention. Clearly, Govind et al. has failed to completely disclose the features of the claimed invention. Govind et al. failed to supply the missing features in APA.

Therefore, for at least the foregoing reasons, the claimed invention as recited in independent claim 1, claim 8, claim 15, and claim 21 and in dependent claims 2-7, 9-14, 16-20, and 22-28 are distinguishable over prior art references.

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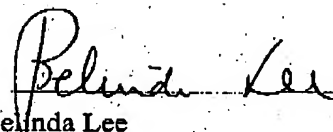
CONCLUSION

For at least the foregoing reasons, it is believed that all pending claims 1-28 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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